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MARCH 26, 1960

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COVER
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EVENTS 141

ARTICLES
Science Education for the Common Man *Sir Eric Ashby* 143
Education—Humanizing the World *Carter Davidson* 144
The Dissertation Requirement *Preston E. James* 147
The Mythology of Educational Research: The Methods Approach *Fred N. Kerlinger* 149
Schools for Africans in Southern Rhodesia ..... *Franklin Parker* 154
The Child's Needs and Teacher Training *Judith Ehre Kranes* 155
Not Hemlock in Paper Cups *Herbert F. A. Smith* 156

REPORT
Do Collegians Conform? *Blanche D. Blank* 157

DOCUMENT
Concerning the University and Contract Research .... *Academic Freedom Committee, American Civil Liberties Union* 160

Recent Publications 146
New Posts 165

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CONTENTS, including Preface and Introduction—*William W. Brickman:* John Dewey's Life and Work in Outline; *William Heard Kilpatrick:* Reminiscences of Dewey and His Influence; *Junius L. Meriam:* John Dewey in History; *Maxine Greene:* Dewey and American Education, 1894-1920; *Harold A. Larrabee:* John Dewey as Teacher; *Isaac B. Berkson:* Science, Ethics, and Education in Dewey's Philosophy; *Robert E. Mason:* Dewey's Culture Theory and Pedagogy; *M. I. Berger:* John Dewey and Progressive Education Today; *William W. Brickman:* John Dewey: Educator of Nations; *William W. Brickman:* Dewey and Russia; *Robert L. McCaul:* Dewey's Letters, 1894-1904: A Preliminary Listing; *Stanley Lehrer:* Brief Biographies of Contributors.

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SAE SOCIETY FOR THE ADVANCEMENT OF EDUCATION, INC.
1834 Broadway, New York 23, N. Y.

Editorial

PURSUIT OF SUPERFICIALITY IN SECONDARY EDUCATION

THE CONTEMPORARY MOVEMENT to put more substance into the high-school curriculum has evoked opposition from the proponents of Progressivism. A new report by the Commission on the Education of Adolescents, Association for Supervision and Curriculum Development, entitled "The High School We Need," asserts that "no longer can it be assumed that all youth can profit by the same program of mathematics, foreign language, science, social studies and English." The authors insist that "only those courses that are essential for competent citizenship should be required of all." Specifically, these are "continuing experiences throughout the secondary school with English and communications as well as with fundamental aspects of our cultural heritage and our contemporary society."

The intentions of this report are noble and benevolent; the prescription, narrow and shallow. The thinking is strongly reminiscent of the type that was prevalent two to three decades ago. The experimentalism of yesteryear has become a form of tradition. Like the Bourbons, the Progressives learned nothing and forgot nothing. The lessons of the neglect of the real essentials during the past 30 years seem to have been lost on them. It is a sad situation nowadays when educational experts can classify foreign languages as nonessential for citizenship education. Have they never heard of world citizenship and international interdependence?

It is high time for those who are concerned with educational matters to get away from vagueness and superficiality in secondary education. The raising of standards of curriculum content and instruction is necessary if this country is to improve its cultural level and its higher education.

Quo usque tandem abutere sapientia nostra?

WILLIAM W. BRICKMAN

SCHOLAR-TEACHERS FOR HIGH SCHOOLS

THE GRADUATE SCHOOL OF EDUCATION, University of Chicago, has announced a program for a high-school teaching degree that hopes to produce a "scholar-teacher." As stated by Dean Francis S. Chase, the program compresses the methods courses needed for teacher certification; expands knowledge of, and intensifies research into, the subject to be taught; provides for a year's on-the-job training, with a scholar looking over one shoulder and a teacher over the other; and takes two years to complete instead of one.

Upon completion of the program, the candidate will be awarded a master of arts in teaching degree in his chosen field. When he receives his first teaching assignment, it is expected he will start on a second-year pay level to make up for the extra year spent in school. A limited number of candidates will be admitted in the summer or autumn, 1960, to begin the two-year program, many of them with substantial fellowships now available for students of superior qualifications and limited means.

"The whole point of the program," said Dean Chase, "is to produce scholar-teachers who will be thoroughly prepared in their subject field, who will be in touch with the best research in the field, who will be expert teachers, and who will be strongly motivated to share their knowledge with their students.

"Traditionally, men and women who want to become secondary school teachers must take courses in their chosen field, plus a separate sequence of courses needed for certification as teachers. Interrelationships between the subject and the art of teaching, where they exist at all, are accidental. We have been questioning whether some of these courses necessarily have much to do with what a teacher actually needs to know. In our program we will extract from the fields of educational psychology, school and society, educational philosophy, and the study of curriculum only those things that appear to have the greatest relevance for teaching.

"These will be the raw materials of an education seminar that constitutes about one-tenth of the total first year's program. The rest of the time will be given to intensive study of the subject (*e.g.* Chemistry, History, English) and to observation and participation in classroom sessions at University High School."

Arrangements are being worked out by Associate Dean G. Ernst Giesecke, professor of higher education, to place the candidates in co-operating schools as part-time teachers, with pay, during their second year. About two-fifths of the second year will be devoted to further study in their specialized fields.

Dean Giesecke said that a student need not have taken any education courses in undergraduate school to apply for the program. Candidates will be selected from those who have completed broad programs of general education leading to bachelors' degrees. Criteria for selection will include intellectual capacity, scholarly aptitudes, and assessment of personality and other characteristics relevant to effective teaching.

A CORPORATION'S ANNIVERSARY GIFT TO UNIVERSITIES

THE TWO UNIVERSITIES in St. Louis and Princeton University will share equally in an unrestricted gift of $300,000 from the McDonnell Aircraft Corporation Foundation in commemoration of the corporation's 20th anniversary, it was announced jointly Jan. 10, 1960, by Chancellor Ethan A. H. Shepley of Washington University and the Very Rev. Paul C. Reinert, S.J., president, St. Louis University. In letters to Father Reinert and Mr. Shepley, Mr. McDonnell said that the officers and directors of the corporation decided to give to private education a sum equivalent to that which would have been spent on a 20th anniversary celebration. Washington University and St. Louis University were selected because some 300 graduates of each institution are employees of the corporation.

"Free and independent private schools are essential," McDonnell wrote, "in order to set a high standard of educational leadership independent of the government. Private schools must be financed largely by money from individuals or business organizations, but private money from individuals has become scarcer as taxes have be-

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come higher. Therefore private schools must get increasing gifts from successful business organizations in order to survive. In turn the survival of our free enterprise business system is dependent on our whole system of freedom, which in turn depends on educated citizens. It is therefore not only an opportunity but the duty of successful business organizations to give to private education."

McDonnell pointed out that Congress has encouraged large philanthropic gifts from corporations by allowing them to give five per cent of their income before taxes. This means that currently 52% of the McDonnell gift would otherwise be tax money.

INTERNATIONAL ACTIVITIES AT TEACHERS COLLEGE

THE INSTRUCTIONAL and research programs of Teachers College, Columbia University, and education abroad are benefiting from the foreign service and travel by the college's faculty, according to R. Freeman Butts, William F. Russell Professor in the Foundations of Education. The international scope of faculty publications is also influential, he noted.

These conclusions stem from a survey by Prof. Butts in October, 1959. He had asked the college's faculty, totaling 150 members of professorial rank, to report its international activities from 1954 to 1959. About 90% of the faculty responded. His findings follow:

Nearly 50% of the faculty reported one or more specific assignments outside the U.S. These activities included lecturing, teaching, research, giving technical assistance, consultation, and participation in conferences. Nearly 45% reported other kinds of foreign travel, such as personal touring, individual study, and research. Thus, nearly two-thirds of the entire faculty did some overseas traveling in the past five years. More than 40% of the faculty wrote articles or books published outside the U.S. or published in foreign languages, wrote many articles or books dealing directly with international subjects, or had continuing editorial or writing assignments of an international character.

One-sixth of the faculty reported teaching regular courses or holding assignments at Teachers College focused primarily on international subjects. Nearly 30% reported membership in professional organizations devoted primarily to international affairs. About one-fifth of the faculty mentioned other international activities.

Prof. Butts said that no attempt was made to estimate the extent of instruction or personal advisement given the approximately 400 foreign students at Teachers College. Also undetermined is the extent of the considerable faculty correspondence with foreign scholars or students, or the extent to which faculty articles or books published in the U.S. are distributed and read in other countries.

"This world-wide experience not only enables our faculty to study about education in other lands but helps us better to train Americans for service abroad and makes us better equipped to take care of the large number of foreign educators at Teachers College," Prof. Butts said. "The experience illuminates our instructional and research programs and gives our faculty deeper insight into American culture and education."

The few faculty members who could not reply to Prof. Butts' survey questionnaire had good reason for not doing so. "They are on overseas assignments," he explained.

NEW HISTORICAL INTERPRETATIONS

THE AMERICAN HISTORICAL ASSOCIATION meeting in Chicago, Dec. 28-30, 1959, was the largest in the 75-year history of the association. About 3,000 historians registered for the meeting and additional hundreds of interested observers attended the sessions. The central theme of the meeting was historiography and new historical interpretations. The opening general session, attended by over 2,000 people, featured papers by H. Stuart Hughes, Harvard University, on "The Historian and the Social Scientist"; C. Vann Woodward, Johns Hopkins University, on "The Unruly Discipline"; and Sir Isaiah Berlin, Oxford University, "On the Notion of Scientific History."

Allan Nevins, president of the association in 1959, gave the address at the annual dinner. His title, "Not Montagues, Not Capulets," reflected his desire for co-operation between the so-called "amateur" historians and the professional historians. This is a time, he said, "for union in a common and exalted effort."

About 235 historians gave papers or otherwise directly participated in the sessions which covered the major fields of history as well as historiography.

The elected officers of the association for 1960 are Bernadotte E. Schmitt, president; Samuel F. Bemis, vice-president; and Elmer L. Kayser, treasurer.

At the business meeting of the association, the executive secretary and managing editor of the *American Historical Review*, Boyd C. Shafer, pointed out that the association had reached a crucial point in its growth, that increased membership (now about 8,300) and increased activities required the association to make decisions concerning its future activities and finances.

ACLS AWARDS $10,000 EACH TO 10 SCHOLARS

THE AMERICAN Council of Learned Societies awarded Jan. 20 a total of 10 prizes of $10,000 each to the following scholars in the humanities and social sciences in recognition of extraordinary scholarly achievement: Merle Curti, professor of history, University of Wisconsin; Frederick C. Grant, professor of Biblical theology, Union Theological Seminary; Kung-chuan Hsiao, professor of Far Eastern and Slavic languages and literature, University of Washington; Roman Jakobson, professor of Slavic languages and literatures, Harvard University; Harold D. Lasswell, professor of law and political science, Yale University; Robert R. Palmer, professor of history, Princeton University; Meyer Schapiro, professor of fine arts, Columbia University; Walter Terence Stace, professor emeritus of philosophy, Princeton University; Henry Nash Smith, professor of English, University of California, Berkeley; and Rosemond Tuve, professor of English, Connecticut College.

This is the third year of the prize award program, thus bringing to 30 the scholars who have been so recognized. Funds for it, as well as for other programs in support of individual scholars, have been made available by the Ford Foundation and the Carnegie Corporation.

The American Council of Learned Societies is a private nonprofit federation of 30 professional societies in the humanities and social sciences. Through these constituent societies the ACLS represents approximately 75,000 scholars. Its executive offices are located at 345 E. 46th St., New York 17, N. Y.

AMERICAN LANGUAGE TEACHERS AND AFRICA

ON DEC. 30, 1959, at the annual meeting of the National Federation of Modern Language Teachers Associations, Chicago, Vice-Pres. Stephen A. Freeman of Middlebury College spoke on "Africa in the World Language Picture," and a panel under the chairmanship of Dr. Leon E. Dostert, director, Machine Translation Project, Georgetown University, discussed "Tradition and Innovation in Foreign Language Teaching." Members of the panel included Prof. Emeritus Henry Grattan Doyle, George Washington University; Frederick D. Eddy, Georgetown University; Winfred P. Lehmann, University of Texas; and Albert H. Marckwardt, University of Michigan.

According to Dr. Freeman, "The modern language teachers of the United States have a real responsibility toward the situation in Africa. It will require three lines of action. First, we need to create an informed public opinion, aware of the changes, interested, and sympathetic to the needs and strivings of the African peoples. Second, centers should be created in our larger universities for the intensive study of at least a dozen of the

(Continued on page 162)

Science Education for the Common Man*

By SIR ERIC ASHBY
Master, Clare College, Cambridge, England

One of the paradoxes of modern universal education is that the common man today is less in touch with what is best and most significant in European civilization than his ancestors were five centuries ago. Through religion (so medieval historians tell us) the civilization of the middle ages filtered down to the common man. The common man lived in wretched conditions; he was condemned to the state of life into which he had been born; his liberties were restricted. Nevertheless, he received through his church some share of the culture of Europe. The disputations of the schoolmen colored the sermons from his priest; week by week he heard Palestrina's music; as he knelt at Mass, his eyes rested on an altar-piece by Van Eyck. The Universal Church was the source of education as well as of religion; through its influence the remotest villages of Europe were irrigated from the central rivers of learning. In making this contrast between the middle ages and our own day, I do not mean to infer that there is no popular culture in contemporary Europe. Far from it. But contemporary popular culture exists separately from what the English call highbrow culture. Undoubtedly some cohesion is conferred on millions of Europeans through their common interest in Hollywood movies, jiving, and boxing. But it is not the sort of cohesion which withstands nationalism and racial prejudice. The traditions of science and scholarship already have proved that they can withstand nationalism and racial prejudice. Now if the assets of science are to benefit the balance sheet of science in Europe, the common man must be helped to understand something of the objectivity, the humility, the tentativeness (if I may coin a word) which characterize a scientist when he is thinking about science. The common man must be helped to understand how—whatever else may divide Europe—European science is indivisible. This understanding—notwithstanding all the popularization of science by television and radio and press—we have failed so far to propagate beyond a narrow circle of well educated citizens.

In brief, the interpretation of science to the common man is essential if science is to contribute to the cohesion of Europe, and I venture to suggest that, in my country at any rate, a good deal of the interpretation of science is of the wrong kind for this purpose: so often we do not patiently explain how scientists work, but rather we exhibit, like showmen, the mysteries and marvels of invention and discovery. The marvels of science have good entertainment value, and there is no reason why people should not be entertained by science; but this does not contribute to the cohesion of Europe.

The immense prestige of science, especially among those who do not understand what science is about, carries with it a potential danger. The danger is that the scientist may come to be regarded as an initiate in some esoteric cult, a withdrawn and distant priesthood, whose influence on the common people of Europe arises from a superstitious regard for his powers and not from an understanding of his work. This danger is more likely to appear in Europe than America or Russia, for in European countries we still reserve higher education for a comparatively small proportion of the population. The vast majority of Europeans still depend on radio, television, and the popular press for their understanding of science. These organs of mass communication inevitably appeal to the emotions rather than to the intellect; they evoke wonder, surprise, and fear, rather than understanding. Anyone who has tried to use mass media to interpret science to the layman knows how much more difficult it is to teach than to entertain, and how dangerously easy it is for the scientist to become sacerdotal about his subject. Who, for instance, has ever heard of a television program explaining how often research *fails* to make discoveries? It is important to avert a danger inherent in the very prestige of modern science. To fail to do so would be to put an entry in the debit side of the balance sheet.

If science is to contribute more to the cohesion of Europe, its values must be interpreted to the common man. This is an educational problem of great difficulty. Dock workers, miners, bus drivers, and textile operatives are not interested in the methodology of science; and if the radio bores them, they turn it off. How can such men as these be persuaded that modern science and technology have made them indivisible from their fellow Europeans? I have no solution to this problem; only two suggestions which perhaps might provide foci for discussion.

One is a small practical suggestion about the

* Excerpts from an oration for Conference of European University Rectors and Vice-Chancellors, Dijon, France, Sept., 1959.

popularization of science. Every experimental scientist recognizes that craftsmanship is important in research. Discovery owes much to the technician. For example, the history of cytology in the 19th century is largely the history of microscopes. As soon as craftsmen were able to grind better lenses, biologists were able to discover more about cell structure. In the popularization of science, much more could be made of the essential part played by technicians, craftsmen, and instrument-makers. For here is a link between science and the non-scientist. Through emphasis on the element of craftsmanship in science, it may be possible to enlist the interest of the man who works with his hands, and to make him feel that he is not just a spectator, but an essential actor in the modern scientific age.

The second suggestion is that universities should assume a greater responsibility than they have in the past for interpreting science to the common man and should study intensively how to do it. This is an activity which the Russians have tackled more vigorously than we have in the West. The Academy of Sciences of the U.S.S.R. has an institute for the interpretation of science to the public. Some of the techniques used by this institute are very effective: it is astonishing to hear a chauffeur or a postman discussing cosmic rays, for instance, at a level you would not find among similar folk in England or Germany. It would be very encouraging if the universities, which quite properly regard themselves as carrying some responsibility for the cultural cohesion of Europe, were to take steps to ensure that the man-in-the-street should understand, and feel he shares, three things about modern science: first, that it is cosmopolitan; second, that it is undogmatic; third, that the obligatory cohesion which already exists among European scientists and scholars is a nucleus around which political and economic cohesion might grow. This is an age when the universities have a unique opportunity to influence the history of Europe. Since the 14th century they have not enjoyed such prestige nor played such a part in the affairs of state. For generations history flowed past them and they made scarcely a ripple on its surface. But in this mid-century the decisions of governments are embarrassingly dependent on scientists and technologists, many of whom are based upon universities. Universities are, for a second time, at the loom of history. If we were able to interpret to the common man the invisible forces which have drawn us together for the Conference of European University Rectors and Vice-Chancellors, in this city of Dijon, we would—I believe—make a notable contribution to the restoration of the fabric of Europe.

Education—Humanizing the World*

By CARTER DAVIDSON
President, Union College, and Chancellor, Union University
Schenectady and Albany, N. Y.

WE MUST ADMIT that our educational institutions have had much to do with the cancerous growth of destructive weapons. But I am not suggesting a moratorium on science and technology; once started, their developments are hard to channel and control, impossible to stop completely. Our universities must continue to educate the finest physicists and chemists and mathematicians and engineers in our world. The physical universe can be a powerful ally in building a nobler civilization, and we must understand the nature of matter and energy if we are to use them wisely. I do, however, point out the danger of dehumanizing our educational program. To prevent this, I urge that the humanities and social studies, which provide mankind with a set of values and a procedure for group living, step up their productivity so that the world can keep its patterns for more abundant living ahead of its techniques for more efficient killing.

The first task of education in our day, therefore, is to provide our students with a four-dimensional education. Certainly science and its analysis of the physical universe should provide one dimension for living, but we cannot survive in a one-dimensional world. Another dimension must be provided by the study of ourselves—our biological heritage, our psychological personality, our powers of self-expression through spoken and written languages, our individual differences. We also must learn to live with ourselves, to realize our own potentialities, to respect ourselves, to rely upon ourselves. We must learn to master the tools which have been given to us as individuals: our manual dexterity, our ability

* Based on address, State Education Conference, University of Kentucky, Oct. 30, 1959.

to read and speak and write, the ready use of numbers and mathematical methods.

But man is part of a third dimension—human society, the social universe—which he must understand if he is to relate himself effectively to it. Beyond his family lies the neighborhood, and then, in widening circles, the city, the state, the nation, and the world. The study of these interpersonal relationships is the function of the social sciences—History, Economics, Government, Sociology, Religion, Education, Anthropology, Geography—which all have a common objective: to make us feel at home with the individuals and institutions which make up our teeming population.

The fourth dimension is time, in whose constantly moving stream we continually walk. We are not the first to face the problems of living; behind the present individual stretch thousands of years of recorded history, masterpieces of artistic, musical, and literary achievements, and the philosophical and religious ideas of billions of ancestors. Before him lies the unknown future, a tremendous challenge to his thought. No individual can hope to become acquainted with his entire human heritage; even the greatest historians can achieve that for only a small segment of time or territory. But the function of the humanities, the study of our own human inheritance from the usable past, is to show the student some of the noblest attempts to discover and create experiences and objects which have more than material value and to help him understand the meaning of human life in terms of its aspirations and ideals. Whereas the sciences seek to discover, describe, analyze, and clarify facts, the humanities seek to appraise, judge, and criticize values.

One area of study which has thrust itself violently upon the educator of today is that of international relations. We in America, up until the last two World Wars, had blandly adopted the attitude of magnificent isolation and manifest destiny. Although the people of our country had come from all parts of the world, we sat behind the barriers of the Atlantic and Pacific Oceans and dealt entirely with domestic matters. The study of foreign languages seemed to us to be a minor decorative frill, not an essential part of education, and even our best trained students never achieved a real command over a foreign tongue. Although World Wars I and II have shaken some of our complacency, we still find it hard to believe that all the other people of the world will not learn English in order to make themselves understood to us. Colleges are asking their students to acquire a spoken knowledge as well as a reading knowledge of French or German or Spanish. Perhaps the emergency of our time has forced upon us the realization that the study of languages of other peoples is basic to our survival on this planet.

We Americans have been equally provincial in our attitude toward the study of History, Government, Philosophy, and Religion. We have assumed that there was no reason to be interested in any tradition or culture except that of Western Eurpoe and its transplantations in America. Today we are reaping the whirlwind of our neglect. China detests us, India distrusts us, and Africa avoids us because throughout our history we have been avoiding and distrusting and neglecting them. The world of the East, or perhaps it would be more correct to say the world of the non-West, must take new prominence in our curriculum. The dynasties of China must be as well known to our students as the English kings or the Roman emperors. Confucius and Mohammed must be read along with Plato. The rising nationalism of Africa must be recognized as important in the same way that the new nations of Germany and Italy and of Latin America were important to the world in the 19th century or our own nation was in the 18th century. We must not rest content with merely intertemporal studies, such as the comparison of the ancient world with the medieval world and the modern world, but must expand our curriculum into intercultural studies, comparing the America of today with the China or Russia or France or Ghana or Bolivia of today. This is what Margaret Mead refers to as lateral rather than vertical education, and we need both of them.

The idea of foreign study has caught fire on many campuses, so that the junior year abroad, such as Sweet Briar College has organized and managed for several years, is becoming a normal part of the education of many American undergraduates. This program is worthy of further expansion, both at the undergraduate and graduate levels. In graduate education the Fulbright Scholarships have been of enormous assistance. Such exchanges are invaluable to the students who stay at home, as the students at Union College have discovered in their program of Higher Education for Lasting Peace (H. E. L. P.), which brings a dozen or more young men from foreign countries to Union's campus as the guests of the college fraternities during each year. These students learn a great deal about America from studying on the campus and living with the fraternities, but they also give to our students an understanding of a foreign point of view. In 1958, I made a trip through Western

Europe to visit almost 100 of these young men who had been students on Union's campus since the war, and I found them to be the best friends that America has in Europe. The explaining of our actions as a nation has given them plenty of headaches, but their living with us has given them an understanding which enables them to interpret America sympathetically to their fellow citizens.

Another way in which we can bring back the humanizing element into our education is to give our students daily contact with the finest products of mankind through the ages—his paintings, drawings, statues, architectural monuments, and music, but especially his literature and mental achievements as set forth in the great books of humanity. For me, the greatest danger of our technical civilization is that we will lose the habit of reading, or that we will limit our reading to the condensed versions and the textbooks. To keep in touch with the great minds of the world, it is necessary for us to read their words in the original, or at least in the best translations available. Out of the reading and discussion of great books can come the identification and analysis of all the major problems which face humanity and a turning of the spotlight upon the values which have impelled man to make his decisions in the past and which may help us to make our decisions today. According to Prof. Philip E. Jacob, in "Changing Values in College," the education of American college students has done very little to improve or change their values in any way. If it is true, then this is a terrible indictment of our whole educational system, for it will be judged in the courts of time not merely by the efficiency of the technology which it produced, but by the soundness of the values which it placed at the center of its civilization.

The humanities and social studies have an important function in addition to the education of our youth; they must continue to study, analyze, and create new knowledge for the benefit of our troubled civilization. Too often our university departments have cultivated an ivory-tower attitude to contemporary problems. Professors of the humanities have defended art for art's sake, the study of literature as verbal technique, history as the accumulation of curiosities, and philosophy as mental gymnastics. Some have tried to ride upon the coattails of science by applying the scientific classifications to the humanities and speak of themselves as philologists or musicologists. Among the professors of the social studies, there are social theorists who refuse to face up to the problems of our day, who prefer to describe rather than to evaluate. In the Germany of Hitler's day, the university professors excused themselves by asserting they were "unpolitische"; this attitude made them the ready tools of totalitarianism. A similar attitude on the part of American social scientists may help destroy democracy.

We cannot deal with human beings as carelessly as we can with test tubes or electrons in the science laboratory. Nevertheless, the need for research in the humanities and the social studies is enormous. Pres. Lee DuBridge of the California Institute of Technology recently said that he wanted someone to write the most important book for our time which would be entitled "Some Things We Do Not Know." This book he would put upon the required reading list for every student and faculty member, and he would urge them to become not merely teachers and pupils, but "companions in zealous learning," so that the love of knowledge would overcome our ignorance and drive out the dark places from the temple of learning. I am sure that in this book of things we do not know, there would be many problems dealing with our physical universe, but I am equally sure there would be just as many problems dealing with human beings and their ways of reacting to one another. It is to this task of providing the humanizing force in our world that we must dedicate the energies of education if our planet Earth is to continue to have life and to have it more abundantly.

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CLARK, BURTON R., *The Open Door College: A Case Study*, pp. 207, $5.00; JORDAN, WILLIAM C., *Elementary School Leadership*, pp. 323, 1959, $5.95; STREVELL, WALLACE H., and ARVID J. BURKE, *Administration of the School Building Program*, pp. 443, 1959, $7.50; TOLBERT, E. L., *Introduction to Counseling*, pp. 322, 1959, $5.95. McGraw-Hill Book Co., New York 36.

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THE DISSERTATION REQUIREMENT*

By PRESTON E. JAMES
Syracuse (N. Y.) University

THE DISSERTATION REQUIREMENT is an essential step in any training program leading to the preparation of either researchers or teachers. The doctor's degree is intended to certify that the holder is qualified to teach a specific body of subject matter at the highest academic level. The dissertation—being an original contribution to a branch of learning—is intended to demonstrate the capacity of a candidate to put into practice the research procedures of his professional field.

Why should the qualification to teach at the highest academic levels include capacity to do research? The most effective teaching is done by a person who has gathered and organized his own material and who has formulated his own concepts. Teaching by any other kind of a person can scarcely advance beyond drill or the demonstration of procedures. Research is the effort to find new and more meaningful assemblages of facts and to derive new generalizations or concepts from them. It is through research that the subject matter and the theoretical concepts of a field of learning grow. Obviously, there is an intimate relationship between effective teaching and competence in the search for new ideas to teach.

If there is any one principle of education, it is that all effective teaching of whatever subject starts with "motivation." The teacher cannot find any method by which facts and ideas can be inserted in an unwilling mind—not until the mind has been opened by what the idealists call "the love of learning." Among all the different minds included in an ordinary room full of students, there are many methods that must be used to develop the urge to learn. Somehow the student must catch fire with the excitement derived from curiosity satisfied or from the successful mastery of a method of research that opens up new avenues of meaning. The teacher who is most effective in arousing the love of learning is one who is, himself, deeply concerned with the learning process—in other words, with research. The dissertation is a demonstration that research procedures have been mastered, and, as such, it is indispensible.

Dissertations dealing with trivial subjects in unimaginative ways can scarcely be said to have provided new and more meaningful assemblages of facts, nor are they likely to enrich the academic community with new ideas. Acceptable dissertations may be grouped in four categories: descriptions that throw new light on hitherto unknown or little-known processes or relationships among phenomena; answers to enigmatic questions of cause and effect; plans for action to exert beneficial control over physical, biotic, or human processes; and creative works in art. Description requires skill and judgment, but "mere" description, which requires only skill, is the reproduction of observed facts and relationships with symbols. Description that is not "mere" is involved with the meaning of things, with the significance of facts and relationships in terms of causes and consequences. Much of the research in the humanities is descriptive; despite statistical smoke screens and pretentious "research design," a very large part of research in the social sciences is also descriptive; and more research in the natural sciences is descriptive than the natural scientists would have us believe. Even the so-called laws of physics are only descriptions of how processes work in isolation from their surroundings. But the scientific method is involved with the search for the answers to enigmatic questions, the second of the above categories. The planning for action programs includes, of course, the applied sciences and engineering in the broadest sense. And creative art is the category in which we place original musical compositions, painting or sculpture, or literary compositions. I would accept a musical composition of a doctorate on a par with a contribution to musicology. But I would leave it to the art specialists to set standards and define procedures.

Dissertations in the first three categories presumably demonstrate the capacity of the candidate to put research procedures into practice. Accordingly, each candidate must be expected to carry through the whole of the research process, not just a part of it: defining a problem, examining the literature to make certain that the proposed study will be original, designing the procedures and gathering data, analyzing the data to find answers, and presenting the results. The formulation of a dissertation project, or

* Based on an address before the Ninth Annual Deans' and Directors' Pinebrook Conference, September, 1959, at Syracuse University's Adirondack Mountain conference center on Upper Saranac Lake.

any kind of a research project, involves five steps: the identification of a problem or purpose; the formulation of a clear statement of the problem; the justification of the problem as one worthy of research time and as one that has not been done previously by some other scholar; a plan of procedure or research design; and proposed deadlines. If the project requires financial aid, then a sixth step is the presentation of the budget. All of this the candidate should do for himself. Of course, the advisor may advise, he may encourage—he may exhort—but he must not hold the candidate's little hot hand as the advance statement is being written.

The steps in between this initial statement of a project and the final presentation of the results differ among disciplines and can best be defined in terms of the various fields of study. But I must urge the need for more attention to the last step—the presentation of the results. The number of people holding doctor's degrees who are unable to write simple, clear, well-organized English is a disgrace. Writing must involve outlining, so that the ideas are arranged in some kind of logical or compelling order. I am a devotee of that outmoded rhetorical device, the topic sentence. I would urge that paragraph one on page one of an acceptable dissertation should include a statement of the problem or purpose; and that on the same page there should appear a concise statement of the results. A dissertation should not be written like a detective story, with the reader left to guess what is going on until the very end. In scholarly writing the story should be told on page one, and the remainder of the dissertation should elaborate and support the opening statements in a carefully conceived sequence of paragraphs and chapters.

These remarks refer, of course, to dissertations that are written. But there are other kinds of symbols that may be used if they are appropriate to the discipline. There are some dissertations that could consist of nothing more than a series of mathematical formulae—maybe only one formula. In my own field, geography, there is the symbolism of the map. I would be prepared to defend the idea that the preparation of an atlas with a minimum of written text might constitute an original and highly meritorious contribution to geography. Written dissertations should not be judged by the number of pages or footnotes; many of them could be improved by making them shorter. Nor would I insist that a dissertation be written in English. In my own field there are several departments that accept dissertations in any language, provided a sufficient number of staff members can read it.

Finally, we should so plan our graduate instruction that the completion of a dissertation does not become impossibly expensive, impossibly burdensome, or unnecessarily lengthy. No dissertation problem ought to require more than two years of work, and many might be completed in one year. I cannot agree with the practice of refusing the degree to a student who has reached negative results in his research. Surely a negative answer to a problem may constitute a contribution, provided the original statement of the project was, in fact, enigmatic; that is, the negative answer must not have been obvious at the start. There are, also, the normal hazards of any research—that some one else may come out with a study of the same problem and cut the ground from under the unfortunate candidate. Perhaps, even in such a case, enough can be salvaged to permit the candidate to complete an acceptable dissertation.

It is important to keep the candidate, himself, in mind. Some candidates are treated so harshly that, for them, research study in later years is something carefully to be avoided. These are the people who are apt to advocate the dropping of the dissertation requirement. There is no need for the committee that administers the doctor's oral to make the examination into an ordeal. The professors do not really need to demonstrate to the candidate or to each other their superior grasp of scholarly matters. Yet, I wonder if there is ever a doctor's oral during which one of the examiners does not ask loaded and obscure questions, not really to test the candidate but rather to build up his own ego. It is of major importance that the candidate's efforts to identify a problem, to plan and carry out the research, to present the results, and to defend his results among his older professional colleagues should constitute a "success experience," and not a passage through purgatory.

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The Mythology of Educational Research:

The Methods Approach

By FRED N. KERLINGER
School of Education, New York University

THE MYTHOLOGY of educational research is a body of legends and beliefs purporting to be the rationale, purpose, and methods of educational research. It has an essentially mystical character which seems to be rooted in the past. To question the mythology amounts to heresy.

The foundations of the mythology are: a general ignorance among educators of science and scientific research; an overwhelming preoccupation with practicality; and a negative and sometimes anti-intellectual attitude toward science and research. Educational research often has been criticized for its triviality, superficiality, and scientific naivete. It has been said that these deficiencies are due to education being a young discipline, to the lack of imagination of educational researchers, to lack of theoretical development, and to general lack of sufficient attention to the canons of science.[1] These points have truth. But more important, perhaps, are the mythology and the knowledge, training, attitudes, and values of people doing, supporting (or not supporting), and consuming educational research—the educators themselves.

The mythology of educational research includes a number of interesting individual myths: methods, statistics, measurement, practicality,[2] "educational research is special and different," action research, etc. The concern of the present essay is the methods myth, one of the more influential of the myths in distorting the research thinking of educators and students of education.

The methods myth seems to be very prevalent in the research thinking of American educators. The teaching of educational research in university schools of education, for example, seems to concentrate largely on "methods of research." Indeed, what is perhaps the most-used text in educational research courses is entitled "Methods of Research."[3] The methods approach is rather narrowly pragmatic. If you want to investigate an educational problem, you must do some research on it. In order to do the research, you need a method. So find a method, the "right" method. Concomitantly, the way to train students in research is to teach them "methods of research."

An example may help to clarify the point being made. Perhaps the most naive form the methods approach takes is the idea that if you want information on an educational subject, then use the "survey" and/or mail questionnaire. It is difficult to tell which of these is the more hackneyed and misused. Both are usually done poorly. This is *not* to say that the school survey has no useful function. It is an important part of the educational enterprise. But to confuse a school survey—which is basically clerical work of a higher order—with a scientific study of the relations among certain variables is another matter. For example, we might do a survey to determine the success of a new system of school consolidation. This is perfectly legitimate and necessary. But to call such an investigation research, much less scientific research, is misleading. Such a study can be scientific. Needless to say, however, the great difficulties in the way of scientifically studying anything as complex as a drastic change in educational administrative practice and its effects on educational outcomes are hardly appreciated.

A basic aspect of the methods approach is the general idea that gathering data constitutes research. This is closely related to the notion that science is fundamentally concerned with gathering, classifying, and storing facts. It is a confusion

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[1] *Cf.*, B. O. Smith, in W. S. Monroe, editor, "Encyclopedia of Educational Research" (New York: Macmillan, 1950), pp. 1145-1152.

[2] The practicality myth has been discussed elsewhere. See the writer's article, "Practicality and Educational Research," *School Review*, 67:281-291, Autumn, 1959. Other myths will be discussed in future articles.

[3] C. V. Good and D. E. Scates, "Methods of Research" (New York: Appleton-Century-Crofts, 1954).

of the taxonomic function of science with science itself. In addition, it is a static view of science and research which emphasizes fact-gathering and which reinforces the methods approach, since it leads to a search for the best "methods" for gathering facts.

Part of scientific research activity unquestionably consists of gathering and classifying facts. But a more advanced and fruitful notion of research is a dynamic one which conceives it as an ongoing scientific activity in which hypothetical and theoretical propositions are tested systematically, not necessarily and primarily to yield knowledge (although this is, of course, important), but to help refine and formulate theories and to yield further hypotheses for further testing. Few educators seem to have this conception of research. The notion which seems to be held is that the purpose of research is to increase knowledge so that education, particularly school practices, can be somehow improved. This is not necessarily a wrong notion; it is, rather, an incomplete and too narrow one. What it succeeds in doing is to choke off higher-level, theoretically oriented investigations in education.[4] It also distracts attention from the most important part of scientific activity—theory-building and testing—and focuses attention on a less important part of science—so-called methods of research. Thus, education becomes saddled with a methods orientation, and the attention of students of education tends to be distracted from research problems and the theories behind them.

The argument on the other side of the question seems to be that education is not ready for theories, that many more facts are needed, and that the facts gathered must be pertinent to the solution of practical educational problems. But no area of investigation is ever "ready" for theory; facts by themselves are meaningless; and facts gathered only for practical ends tend to throttle scientific activity. Cohen put it nicely:

> . . . There is, however, no genuine progress in scientific insight through . . . accumulating empirical facts without hypotheses or anticipation of nature. Without some guiding idea we do not know what facts to gather. Without something to prove, we cannot determine what is relevant and what is irrelevant.[5]

Education needs both data and fact-gathering *and* the systematic testing of theoretical and hypothetical propositions in a rigorous fashion. But an emphasis on methods leads persuasively to a stereotype of educational research as mere data-gathering, since methods are devised to gather data. This mode of thinking makes it difficult, if not impossible, for the educational scientist to work in a theoretical framework.[6] The scientific purposes of theory, prediction, and control are lost with such a viewpoint, and it is probably just these features of science which are the most fruitful stimulants of scientific curiosity and scientific research.

What implications does the methods myth have for educational research? Because of space limitations, only two of these will be discussed. Perhaps most obvious is the effect on graduate curricula. Evidently few schools of education require systematic and thorough study of research design, statistics and statistical inference, and measurement. Courses offered in these fields tend to be practical and "consumer-oriented." They are designed supposedly to help students understand ("consume") rather than to do. When a course in research is offered, it tends to stress the various so-called methods "appropriate to educational research"—the normative-survey, the causal comparative method, the case study, the correlation method, and so on.[7] Little or no stress is put on design of research springing from the adequate statement of a problem or problems, statistical inference and probabilistic thinking are de-emphasized, and the many recent, significant developments in social scientific and other branches of research—multivariate analysis, such as the analysis of variance and factor analysis, the mathematics of sets, matrices, and probability, and the several important developments in meas-

[4] An interesting example of this tendency is the explanatory material for research proposals put out by the U.S. Office of Education, Department of Health, Education, and Welfare, in connection with Public Law 531 on cooperative research projects. Under the heading, "Criteria for the Evaluation of Proposals for Research Under P. L. 531," 13 criteria are given, not one of which says anything directly about basic research or theory in educational research. The first of these is significant: "1. The proposed research, survey, or demonstration is concerned with the development of new knowledge directly applicable to the educational process or with new applications of existing knowledge to the problems in education."

[5] M. R. Cohen, "A Preface to Logic" (New York: Meridian Books, 1956), p. 148.

[6] It is interesting and distressing to note that the large foundations interested in educational problems are channeling huge sums of money into research with rather narrowly conceived practical ends. Unfortunately, little of this support seems to go to theoretically oriented investigations. Apparently one must show that the results of one's research will help make a better educational world, especially according to the foundation's definition of a better educational world.

[7] Good and Scates, *op. cit.* Significantly, the earlier edition of this work carried a whole chapter called "The Classification of Research Methods" in which attempts to categorize educational research were summarized. This chapter is one of the best pieces of evidence of the tendency I am discussing—the tendency to think directly and basically in methods terms. See C. V. Good, A. S. Barr, and D. E. Scates, "The Methodology of Educational Research" (New York: Appleton-Century-Crofts, 1936), Chap. V.

urement—either are ignored or dismissed in a few words.

Judging from the products of doctoral students of education and the understanding of educators of science and scientific research, courses in educational research have been failures. They neither have trained students to do research and to use statistics and measurement, nor have they given students much understanding of these matters. It is not claimed that the methods approach is the cause of the much-bemoaned incompetence of doctoral students of education in handling thesis problems. It is, rather, a symptom of the deeper disease of educational thinking, outlined earlier as the foundations of the mythology, which can be epitomized in three words: ignorance, practicality, anti-intellectualism.

The immediate point is that doctorates are conferred upon methods-oriented doctoral students, some of whom will be the future educational leaders who have to train the next generation of students. The argument often is used that schools of education are and should be basically concerned with turning out practitioners and not "theoreticians" and researchers. But whether this should be so, while pertinent, is not the real issue. The hard fact is that the professors of the next generation are selected from the doctoral students of this generation. If the training now is no better, or even worse, than it was in the past, then we can expect nothing more than a perpetuation of the mythology with, perhaps, a few more, newer, and possibly more defensive rationalizations than have been used in the past. Along with this is the equally devastating thought that the present attitudes of doctoral students tend to become the future attitudes of educators in general. Thus, the relatively narrow methods-centered and even covert anti-intellectual attitudes of present doctoral students—due to their training, the social milieu in which they train, and the mythology—become the attitudes of most educators.

A second implication or consequence of the methods approach in educational research thinking is the cultural lag attendant upon such a conception of research. Educational research is perhaps 10-20 years behind other related fields of research. Psychological research, for instance, has well incorporated into itself the multivariate thinking of Fisher, Thurstone, and others. More important, a large proportion of psychological research is science-oriented and not methods-oriented. The same is more or less true of sociology and sociological research. But not so in education. The school of education which insists that its doctoral students learn to understand science and to use modern scientific analytic tools seems to be rare. The emphasis, instead, is on the vague vagaries of methods which, in the last analysis, help the education doctoral student—or, for that matter, any investigator in education—very little. On the contrary, they seem to be successful only in confusing the student. They confuse him, as hinted earlier, because they lead him to believe that research problems can be solved mainly with their aid. And, generally speaking, this is not so. The graduate student of education needs to learn, among other things, the nature of science and how the scientist thinks and works, modern multivariate approaches *and their rationale*, and modern modes of analysis of data. There are other indispensable ingredients, naturally. For instance, the student also needs to understand modern measurement conceptions, such as the recent advances in thinking on the validity problem.[8] But a good start could be made by simply dropping out of the curriculum of the graduate education school the whole methods approach as it has been preached for decades and by substituting rigorous courses in research design and scientific thinking.

Lest too negative an impression be left with the reader, it should be noted that there are visible chinks in the educational research armor. Occasional excellent studies always have been published—but they have been too occasional. In the last four or five years, however, there has been an increasing upsurge of significant and well-designed and executed studies.[9] It probably is still true that many or most doctoral theses continue to be poor. But if the present trend toward broader theoretical and methodological thinking continues, educational research will be revolutionized. And it is the business of schools of education to hasten and not to hinder this revolution. Above all, it is the business of schools of education not to create and perpetuate mythologies, but to destroy them.

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[8] *E.g.*, see E. E. Cureton, in E. F. Lindquist, editor, "Educational Measurement" (Washington, D. C.: American Council on Education, 1951), pp. 621-694.

[9] Four good examples of this upsurge are: N. Gross, W. S. Mason, and A. W. McEachern, "Explorations in Role Analysis: Studies of the School Superintendency Role" (New York: Wiley, 1958); E. B. Page, "Teacher Comments and Student Performance: A Seventy-Four Classroom Experiment in School Motivation," *Journal of Educational Psychology*, 49: 173-181, Aug., 1958; D. G. Ryans, "The Investigation of Teacher Characteristics," *Educational Record*, 34: 370-396, Oct., 1953 (general report on a series of studies); I. Sarnoff, *et al.*, "A Cross-Cultural Study of Anxiety Among American and English School Children," *Journal of Educational Psychology*, 49: 129-136, June, 1958.

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Schools for Africans in Southern Rhodesia

By FRANKLIN PARKER
University of Texas

SOUTHERN RHODESIA joined two neighboring British territories in south central Africa to form the Federation of Rhodesia and Nyasaland in 1953. Their respective black-to-white ratios are 350:1 in impoverished Nyasaland, about the size of New York State; 28:1 in richer, copper-producing Northern Rhodesia; and 11:1 in self-governing Southern Rhodesia, about the size of California.

The more numerous African Negroes of Northern Rhodesia and Nyasaland, under British colonial office rule since 1923, have resisted federation in fear that Southern Rhodesia's strong segregation policy would dominate. Anti-federation violence erupted among African nationalists in Nyasaland early in 1959. Yet, Southern Rhodesia's Africans have advanced notably and their desire for Western schooling is striking.

David Livingstone opened this area to missionaries after 1850. Cecil John Rhodes aroused Britain to occupy the area in 1890 before other European powers did so. Two tribal groups lived in Southern Rhodesia, the weaker Mashona and the stronger Matabele. These people were no match for Rhodes' British South Africa Company, which administered the three territories under a royal charter until 1923, or for British and South African white farmers and miners demanding cheap African labor in a white-controlled country. Two abortive rebellions were put down in 1893 and 1896; for many years afterwards the African people lived apathetically in reserves. Taxation and forced labor were used by the government to coerce unwilling African men to work on farms and in mines.

By 1900, 10 Christian missionary societies had established churches and schools on government-granted lands. The first Education Ordinance (1899) established an Education Department and set grant-earning conditions for separate white, Asian,[2] colored,[3] and African schools. In 1901, three African schools, enrolling 265 pupils, earned government grants. Discipline, cleanliness, and industrial and agricultural work were stressed. Simple academic instruction was given in the vernacular. English was taught. But the understaffed Education Department rarely had time to inspect the scattered African village schools.

African teachers, poorly trained, had only a few more years of schooling than their pupils. For decades government grants were based on attendance. The missions, realizing that schools were an ideal way to reach the mass for religious purposes, encouraged large enrollments. The result was more inefficiency, untrained teachers, and lack of discipline.

By 1927, the inefficient African village schools contained 100,000 pupils. The missions, which always have borne a great responsibility for African education, were distraught over insufficient government aid. The government was dissatisfied over the low quality and lack of aims of African education. The small educated African elite were cut off from their own people and unaccepted by the whites, while the mass remained untouched.

These problems forced the government to create a separate Department of Native Education in December, 1927, with Harold Jowitt, an experienced educator, as director. Believing that education should uplift village life, he began a massive community development program. Weak village schools were closed, trained African agricultural and health demonstrators from the two government schools were assigned to the missions, and Jeanes teachers were trained as itinerant master teachers for the reserves. But the Depression curtailed Jowitt's plans and led to grant cuts for missions. In 1934, rival officials forced Jowitt's resignation.

The African move to town in the 1930's reached large proportions during World War II and coincided with a rapid African population growth. The industrial-agricultural bias demanded in African schools by government grant-earning conditions began to give way to academic education. Because of the great pressure from urban Africans for school places, missions submerged differences in nondenominational urban schools. With the task too great for missions, the government took over urban African education after 1945. Despite the accelerated school building program, double sessions and church halls for classrooms have had to be used. Still, urban school needs are not fully met.

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[1] Based on the book, "African Development and Education in Southern Rhodesia," by Franklin Parker (copyright, 1960, by Kappa Delta Pi and published by The Ohio State University Press).

[2] Indentured servants from India and China first entered Southern Africa in the early 19th century.

[3] Offspring of mixed unions.

Missions began secondary school work on their own resources in 1939 and received government grants for this purpose in 1945. The first government high school was opened in 1946.

Teacher training, weakest link in African education, improved after 1939 when grants were changed from a capitation basis to teacher qualifications. The high percentage of untrained teachers was reduced from 94% of the total teaching force in 1934 to 70% in 1950, and is at present about 50%. Entrance requirement for training to teach the first five elementary grades was raised to eighth grade in 1934, and an improved two-year teacher-training course was begun in 1939. For teachers in the last three elementary school grades, a two-year, post-10th-grade training program was started in 1949. There are 36 mission teacher-training schools and one government teacher-training school.

As part of the five-year plan for African education begun in 1956, enrollment is being doubled in the upper elementary years and two new government high schools have been opened. An African Education Bill in 1959 is unifying the teaching service and improving teachers' status and salaries.

After 60 years of rapid Westernization, 12,000 African teachers in 3,000 schools educate about 500,000 African children. These comprise 85% of all African children of school age in Southern Rhodesia, said to be a higher percentage than in any other African country.

The hard-pressed director of African education commented in 1958, "The thirst for education grows stronger year by year among Africans."[4] One-eighth of the territory's total revenue, announced the Minister of Native Education, is currently being spent on African education, "a very large slice of the cake."[5]

The two problems of money and politics remain. Officials, burdened by recurring crises of overflow enrollments, see improvement mainly in terms of more money for more schools and better staffs. But education in the long view reflects the political restrictions under which it must operate. Few question the waste of school systems segregated by custom and law. The avowed goal of Southern Rhodesia and the federation is partnership among the races. An educational renaissance can only come with the working out of this difficult concept.

[4] *Rhodesia Herald*, April 17, 18, 1958.
[5] *Ibid.*, Feb. 4,, 1959.

The Child's Needs and Teacher Training

By JUDITH EHRE KRANES
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AT A RECENT MEETING on teacher training, an elementary school principal stated that the primary function of his teachers was "to understand the child's needs." To a question, "Will children learn the three R's from a teacher whose education has been primarily in the field of child development?" he replied, "Yes, since children learn anyway."

Many teachers who began to teach via the "authoritarian" approach gradually shifted their point of view to what is commonly termed child development. This takes into account some understanding of the child's readiness to learn physically and mentally, and it recognizes some of the child's emotional involvements in learning. With time, it has dawned on the author that the attack upon this "progressive" method is the result, to some extent, of a too glib approach to the material in child development and to its misapplication. In addition, there are a number of educators who, instead of using child development in teacher training as a means of teaching subject matter better, use it as an end in and of itself.

It is through the teaching of subject-matter content, whether it be teaching English to the sixth grade or social studies to the high-school student, that the interested and knowing teacher can learn about many of his student's strengths and weaknesses, about his student's maturity; and it is partly through the student's specific application to subject matter that the teacher, with some knowledge of child development, is best equipped to help his students.

Many reputable child therapists wish they had at their disposal practical tools analogous to the teaching of the three R's and other subject matter, so that they could have more ways to reach and help the child. A teacher who has been steeped in "the child's needs," while lacking a solid background of subject-matter content from which to draw, is like an individual who has been taught to swim without going into water. It is this type of teacher, too, who, when faced with questions concerning the academic achieve-

ment of a student, resorts to the generalizations which are, too often, meaningless clichés, such as, "He needs freedom from fear," or, "He needs freedom from guilt." Having spent a long professional life in the study of child development, I do not minimize the important part that the emotions play in learning. But the teacher whose whole focus is on the student's emotions, and whose analysis of his performance is so woefully inadequate, is not better than the teacher who loses sight of the student for the subject matter.

Good teaching is not easily defined. Besides being wholesome, with an interest in children and some understanding of them, teachers must have a foundation in subject matter which fires them with the enthusiasm to *teach*. Elementary school educators need to be certain that there is enough room in their curriculum for teachers to get the subject matter that they need.

There is much about the learning process which is not known, even with the present knowledge in child development. There are many different kinds of learning, and children learn in many different ways. Progressive-minded educators have made significant contributions to child education. But they must be wary of the extraordinary amount of jargon and "gimmickry" which passes for the real thing.

Not Hemlock in Paper Cups

By HERBERT F. A. SMITH
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RAIN WAS FALLING in the streets of Athens and the atmosphere of the Symposium, a small wine shop near the center of the town, was charged with contention. Several men around one table were arguing violently. Tempers already irritated by the foul weather were flaring up in animated discussion.

"I say," said Arogenes, pounding on the table until the goblets rattled, "that even though he has been dead almost a century, old Socrates' teaching is back of these young people who are called the Defeated Ones. Didn't he wander from place to place in the city and don't they live like beggars? He was charged with corrupting the young people of his day, but the seed he planted is now bearing its full fruit. Our youth is more corrupt than ever before."

"That is right," shouted Euripetes, "but it goes even further. Our young people are even deserting standards of cleanliness. These Defeated Ones sit around in the dim recesses of subterranean shops dressed in old woollen clothes like sheep herders. Socrates, I've heard, would not bother to dress decently either. His philosophy surely has affected our young men."

"You are all wrong; you don't understand Socrates," rejoined Leanytes. "Socrates didn't want to corrupt youth. He tried to tell us what was happening with the changing of the times. As times change, so do our customs and our government; we are no longer a patriarchal society. We are getting farther and farther away from the close-knit clan where word is handed down from father to son and we are subject to more public speaking and writing. The wider use of these methods is bound to affect our young people. The Defeated Ones, with their avowed lack of purpose and their disrespect for conventions, have enacted a caricature of Socrates' teaching. They got most of their ideas from Diogenes of Sinape, whom they call 'The Dog.'"

"Maybe we are making much of nothing and the bark of these people called dogs is worse than their bite," put in Phidias, with an attempt at humor. The attempt was not well received.

"They call each other 'dog' and refer to their group as 'dogs.' That's only a small part of the strange language they speak. Even when we Greeks have a good word for a concept, they have to coin something new. I overheard several near the baths the other day, and it is difficult for one who prides himself on speaking good old plain Greek to understand them." They all listened to Euvidides speak thus, for he was known and respected for his learning and his knowledge of languages.

"I am more concerned with their moral degeneration than with their language defect," insisted Arogenes. "Why, even young women don their untidy garb and go into these cellars to listen to their strange music. I'm told that some of their musicians can make a lyre produce sounds that no lyre was intended to produce. This terrible music, I am sure, excites their passion and leads to even worse degeneration than otherwise would be the case."

Leanytes was half sitting, half standing, trying to get his word in edgewise. "Socrates never tried to teach anyone to play a lyre to excite passion or to teach anyone to misuse the Greek language. Although he paid little attention to his clothes, or any worldly goods, he taught moderation and

decency. He lived simply and frugally, but he was neither dirty nor indecent. This mistaken concept of philosophy certainly was not intended by Socrates, the greatest philosopher who ever spoke our language."

"That's just the way you have pictured him to yourself," Arogenes yelled back. "I say he was given hemlock to drink 80 years ago, and, if I had my way, I would put hemlock in the wine cups of the Defeated Ones and get rid of them all. If something isn't done, and done soon, this pessimistic fad will spread to all our young people and all of the sound ideas of Greece will be lost forever."

"You are being as foolish as those you attack, Arogenes," said a calm old man who had been listening closely. "The young ones who believe that to advance means to discard the traditional are, in this generation, called the Defeated Ones. Another generation will bring another group and another name. I cannot blame Socrates, but whoever spoke the words on which their beliefs rest, our country is strong enough to contain these youngsters and their beliefs. It is not impossible, moreover, that amongst their beliefs is one of value. Only weak and cowardly peoples have to destroy their members who go against the main stream of thought. Let others punish and kill those with innovations of thought, but let us search their thinking for truth."

REPORT

Do Collegians Conform?*

By BLANCHE D. BLANK
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IN THE FEW YEARS since William Whyte popularized "The Organization Man," with his rejection of independence, thrift, and the profit motive, there has been considerable speculation over the validity of his conception of American youth. One by one, campus voices have decried this portrait of conformity; but, by and large, comment from such institutions as Princeton, Barnard, and Vassar have been explanations of *why* their graduates are more security-minded or "mature" than previous generations.

This study (at the risk of combining overgeneralization with under-collection) proposes that the world of New York's municipal colleges remains, perhaps, the last bastion of the "Protestant Ethics." While American youth, in general, may be ready to abandon the traditional search for salvation through hard work, shrewd risk, and individual inventiveness, particular segments of our collegiate population still nurture an old-fashioned brand of self-reliance. Mr. Whyte does not deny this possibility, but disregards it.

Specifically, recent male graduates of the municipally owned City and Hunter Colleges show a healthy resistance to current clichés. They are not yet captives of "groupthink" nor slaves to security through mediocrity. The composite municipal graduate is a young man dedicated to the tradition of rags to riches, eager to gamble on his own wits for high stakes, ready to abandon the safe compromise for a more precarious profit, conservative in his buying and saving habits, prone to developing his own nest-egg, and still ready to act on the notion that there is no valid substitute for individual thought and action.

This portrait is derived from a questionnaire completed by 150 City and Hunter College graduates.[1] Fourteen questions were asked relating to salary, savings, desire to become self-employed, preferred size of organization, employment goals, work satisfactions, security-mindedness, installment buying and budget preferences, and college curriculum evaluation. Data concerning residence, religion, income, and family background were also requested.

Consider, first, the question of our collegiate's dream income. According to Mr. Whyte, the average college graduate aspires to $15,000 per year. Yet, he footnotes a survey where the median figure for salary aspirations was only $8,000.[2] The municipal college graduate looks

* Acknowledgment is made for the aid rendered the writer by the Hunter College Bureau of Institutional Research, particularly Prof. Marjorie B. Smiley and Dr. Arthur R. Sprague.

[1] The sample consisted of all male graduates of Hunter College in 1949 and 1955 and a sample amounting to the same number from City College for those years. The years were chosen to conform to the research items used by Whyte and also to allow for any significant deviations that might be caused by the immediacy in 1949 of World War II. In all, 394 questionnaires were sent, and 150 were returned, completed.

[2] W. Whyte, "The Organization Man" (New York: Simon and Schuster, 1956), p. 71.

forward to a median of $20,000, and over 25% anticipate $30,000 or more. But income does not touch the core of the problem as closely as those items that reveal security-consciousness and a happy abdication to corporate paternalism. Here the heart of the "organization man" is more clearly revealed. In respect to such items, the deviation of the municipal college graduate is even more dramatic.

Whyte relates the case of a senior who rejected a small sales company's $15,000-a-year job for one with a large company for $8,000, apparently because of the pension plan and other fringe benefits. Many corporation recruiters are finding collegians obsessed with these security programs. To test our own sample, we devised an item describing two jobs: one representing a 30% increase but only a one-year contract and no fringe benefits; the other, a five per cent increase, five-year contract, and an attractive pension plan Over 60% of the sample chose the higher-paying, less secure plan with no fringe benefits.

Why did the respondent prefer working for someone else instead of going into business for himself? Why did he select an organization of a particular size? Motives such as "more security," "greater monetary gain," and "better possibility for advancement" were offered as choices, but 73% of the graduates gave replies other than "more security."

While Whyte is concerned because less than five per cent of his business-oriented college group aspire to be enterprisers themselves, and only 15%-20% plan to go into their fathers' businesses,[3] here in the municipal college world over 50% cherish the goal of self-employment, and about 35% think that their chances of accomplishing this are very probable.

The city college men avoid the rush to large corporations, considered by this security-minded generation safe and sure against wars and depressions. Over 73% of the sample are inclined to work in organizations employing less than 1,000 persons. Over 63% would choose organizations with less than 500; and over one-third confine their ambition to firms of less than 50 employees.

What type of work was liked best: selling products, directing other people, analyzing data, developing new products, publicizing ideas or products, counseling other people, or manually creating products? The glamour areas of advertising and personnel accounted for only 30% of this group's preference. Even "directing other people," the management or organization-man apotheosis attracted only 20%. The largest single preference (25% of the group) was to analyze data—an old-fashioned, individualistic-humanistic, and highly academic endeavor.

Another facet of municipal college deviation is revealed by a look at savings habits and aspirations. More than 50% of this group report they are now saving over 10% of their incomes, with 41% saving more than 20%. Despite this substantial ratio, the group as a whole considered their savings inadequate. Their anticipated peak savings are in line with the conservative habits they apparently have developed: 84% expect more than $10,000 by the time they reach 50. This is in striking contrast to the average $1,420 in savings per person reported for the U.S. as a whole.[4] In fact, one-third anticipate over $40,000 in savings and investments.

This syndrome correlates well with the atypical attitude the group reveals toward installment buying. Over 43% of the group will not buy any of four commonly offered installment purchases, *i.e.*, cars, television sets, furniture, or vacations. Over 33% of the group will buy automobiles this way compared to the national average of 64%.[5]

The conformity pattern breaks down again when the students were asked whether they prefer to work out their own savings and retirement schemes or whether they prefer automatic deductions that reduce their own area of discretion. Some 69% prefer to do it themselves. This is significant in view of the widespread budgetism that seems to have afflicted the country. The average organization man is highly sympathetic to payroll deductions, to prepackaged loans, and to any other device that relieves him of the necessity of thinking through his own plans. But not the City College and Hunter men.

Another part of the conformity pattern—and one that is particularly vicious because it is self-generative—is the tendency for college students to major in so-called "practical courses" and later to do graduate work in the same type of area. City and Hunter men, however, defy the pattern. While the national trend indicates that only 30% of college men graduate with a liberal arts or science major (the rest majoring in engineering, business, commerce, or education), more than 70% of the City and Hunter men choose the liberal arts tradition.

Identifying the courses proving most useful to them in their postgraduate life, 48 listed English among the top three courses of significance; 39, psychology; 29, economics; and 23 each, political

[3] *Ibid.*, p. 68.

[4] *New York Times*, March 15, 1956.

[5] "Automobile Facts and Figures: 1956" reports that 64% of all cars are bought on installment credit of some kind.

science and mathematics. In fact, pooling all the choices for technical offerings (*i.e.*, engineering, accounting, business, education, etc.), such courses together received only 51 out of 360 votes cast.[6]

The young men studied here have a vastly different background when compared to the nation's typical collegiates; they are almost unanimously New York City-born and bred; they are overwhelmingly members of minority religious groups; they are heavily second-generation Americans; and they are almost uniformly lower middle-class economically. Because of the small sample returned and the highly skewed nature of some of the background information, there will be no statistical correlation tables. Nonetheless, certain interesting, even if impressionistic, explanations can be offered.

To begin with, 127 of these graduates were born and reared in New York City. Only three added the cosmopolitanism of the suburbs and seven the frontier spirit of the Connecticut and New Jersey hinterland. Two Latin Americans and 10 Europeans flavored the group. Needless to say, New York City is not representative of the nation's general tempo. This is a city that is the heartland for individualistic, artistic, and intellectual endeavor. The fashion business, one of the most important industries of the city, offers a vital example of earning a livelihood outside the thralldom of the giant corporation. This atmosphere is in strong contrast to many other company-dominated metropolitan areas.

From a religious point of view, the group is extraordinarily skewed: 90 (60%) Jews, 29 Catholics, 10 Protestants, two Greek Orthodox, five agnostics, and one atheist.[7] While the old "Protestant Ethic" may be dying in America as a whole, it is surviving among America's Jews with their Old Testament ideas of individualism, personal responsibility, the dignity of labor, and the respect for education. These constitute also the fabric of the Puritan tradition. History has caused the Jew to emphasize these goals. The need to survive inquisitions, pogroms, deportations, and genocide has accentuated those elements of Jewish culture that stress individual initiative and the usefulness of those commodities that the individual controls himself (*e.g.*, money) as against packaged benefits that rely in the last analysis on the continued goodwill of others. Minority religious groups are frequently discriminated against in the employment policies of the larger companies typifying the organization-man atmosphere. It is natural, therefore, for such groups to identify their goals in terms of their probabilities.

Another factor that helps to explain the municipal college group's deviation from the national norm is the quality that emerges from second-generationism. Of the 296 parents, 187 (65%) were born outside the U.S. The phenomenon of being second-generation involves complicated sociological and psychological implications. One commonplace syndrome is a marked desire to identify very fully with the "new" culture to be 100% American. But the cultural time lag probably operates, so that the new second generation is still exposed to the dream of Horatio Alger, the operation boot-strap—in sum, the mythology of 19th-century America. This certainly would affect aspirations.

Moreover, 129 of these foreign-born parents are from Southern and Eastern Europe, where there is less industrialization than in the U.S. or in Western Europe. The rural or semi-urban life, once again, places great emphasis upon individualism. There are more tasks and plans initiated and completed by the man alone (or the family group) than in highly urbanized, technically advanced communities where there is specialization of labor, mass unionism, and other organization patterns.

The parental economic background of the group is also atypical. For example, whereas the average wage earner in the U.S. is not self-employed,[8] 37% of the fathers are self-employed. Their incomes are below average for their community:[9] 53% of the group earn under $5,500 per year. The incomes of the graduates themselves follow a similar pattern: 66% earn under $5,500. The fact that they are, and always were, economically uncomfortable, if not actually insecure, may emphasize their dream of achievement. In their Walter Mitty moments they see themselves as Cash McCalls, big money-makers. Men whose families already have settled comfortably into the middle-class strata may find less need for dreams of glory.

The four atypical strains mentioned above all serve to reinforce one another. The homogeneity of the group strengthens any innate tendencies. There is no "outside world" to offset these influences. The experiences and background of

[6] Each student could have listed three choices, but 90 such choices were not used. This accounts for the 360 total. The remainder of the choices were scattered among the liberal arts and sciences.

[7] Eight students did not reply, and one listed "none" for this item.

[8] There were 9,591,482 self-employed workers in a total labor force of 56,239,449 in the U.S. This equals about 17% (U.S. Department of Commerce, "Statistical Abstract," 1950).

[9] U.S. Department of Commerce, "Statistical Abstract," 1957, reports the average family income for 1956 as $5,520.

each member of the group are echoed and intensified by the similarity of his neighbor's ideology. But to the degree that this singularity provides the leaven in an otherwise rather flattened dough, it is a healthy symptom. It should be cultivated and cherished.

DOCUMENT

Concerning the University and Contract Research

By the Academic Freedom Committee of the American Civil Liberties Union

In the years since World War II there has been a striking increase in the extent of non-academic support of research activities in colleges and universities. Most of this support comes from the Federal Government, but not inconsiderable amounts derive from private foundations and industry. The National Science Foundation has estimated that federal obligations for scientific research and development at institutions of higher education or in laboratories managed by them amounted to $440 million in the year ending June 30, 1958, and that perhaps as much as two-thirds of the expenditures for all research and development performed by colleges and universities currently comes from the Federal Government. In certain fields, such as physics and chemistry, contracts and grants from nonacademic sources account for 90%, or even more, of the research budgets of individual departments.

Few would argue that large scale support for the scholarly activities of university and college faculties does not serve the best interests of the nation and of mankind. Sponsored research has made tremendous contributions to American scholarship and higher education in many ways quite apart from the obvious increase in the volume of research activity. It has made it possible for universities to maintain strong science faculties in the face of intense competition from outside agencies carrying on exciting work in newly developed fields. It has supplied much of the modern strength in graduate education, not only in the form of financial support to graduate students, but also in providing for them adequate scope for research training and experience.

Our colleges and universities are irrevocably dependent on the support they have been receiving in the form of sponsorship of research, and indeed this support must continue to increase rapidly in the years ahead. However, it is evident that the explosive nature of the present increase is exerting a revolutionary influence on the structure and functions of our higher educational system, and that the short term and long term effects of this influence are not receiving the careful study they merit. We are proceeding in a haphazard way, with parts of the academic community enjoying a newfound prosperity, giving but little attention to the far-reaching changes being, so to speak, forced on our universities. It must be clearly recognized that if outside financing of university research and graduate education, particularly in the natural sciences, continues to follow present patterns, it will inevitably lead to a very serious erosion of university control of university activities. We should face squarely the question as to whether we are prepared to break with the long-established tradition which entrusts to universities a large measure of autonomy in their proper functions of education and research—whether we are prepared to replace a significant fraction of this autonomy by a patchwork control exerted by a variety of bureaus with widely differing aims and interests. It would appear evident that a rational decision in this matter, admittedly very difficult to arrive at now, will become increasingly so with the passage of time and the creation of new vested interests.

It may be asked why this problem is one of proper interest to a group which concerns itself with matters of academic freedom. The term academic freedom is frequently considered to refer to the rights of individual faculty members in their relations with university administrations and society as a whole. A very important facet of academic freedom, which has perhaps not been as frequently brought into public attention by the pressure of events, is the freedom of the university as a corporate body so to manage its own affairs that it maximizes what it considers to be its important contributions to society. Brief reflection shows that any serious compromise of this broad aspect of academic freedom may well lead to significant impairment of the individual rights of faculty members, either as members of a university or as private citizens.

Various individuals and groups, speaking as isolated voices, have called attention to some of the problems introduced by the mushrooming non-university support of academic research and graduate education. It is the thesis of the present statement that an adequate answer to the broader problems of preserving university autonomy in the face of heavy subsidization from outside will lead to solutions of many of the more specific problems—indeed, will provide the only possible path to such solutions.

It appears worthwhile to point out here, without

full documentation, a number of the results of government and private sponsorship which appear to us most effectively to emphasize the trend away from university autonomy which has occurred, all but unnoticed, in recent years. Most of these specific problems have been more adequately considered by others[1], but they are included here in order to give a reasonably fully developed picture.

It is obvious that the application of government security procedures in universities in which classified research is conducted on campus under contracts with federal agencies can lead to situations in conflict with the personal rights of faculty members, including even those who are not engaged in classified research, and can effectively limit the freedom of the university in applying its own proper criteria in the selection of its staff. The case against the acceptance by universities of contracts for classified research has been eloquently stated[1d] by Dean Bundy of Harvard. Even in cases of government contracts for completely unclassified research, considerations of political affiliations have entered into the selection of research personnel. We may cite the case of a contract between the Atomic Energy Commission and a leading university which was prematurely terminated when it was found that one of the participating faculty members had leftist political leanings. For a brief period, the Department of Health, Education and Welfare held to a policy according to which Public Health Service research grants were not awarded to scientists of currently unpopular political beliefs.

Funds for sponsored research are more readily available in some fields of knowledge than in others, so that important areas of scholarship may be neglected. Of the nearly half a billion dollars placed by federal agencies in universities in 1958, 95% went to the natural sciences.[1c] Continuation of this trend cannot fail to bring a relative impoverishment to the humanities and social sciences which would certainly not occur if the universities and university scholars were permitted free exercise of their own judgements. In the matter of financial aid to graduate students, and extra financial rewards to faculty members, severe imbalance in favor of the natural sciences is likewise developing under existing patterns of subsidization.

Granting agencies are frequently favorably inclined toward ambitious proposals for so-called programmatic research to a degree which was not evidenced by the universities when they controlled the financing of their research activities.[2] It is well recognized that very impressive results have in many instances flowed from large scale research programs, most notably in the field of nuclear physics. Indeed, many aspects of modern scientific research can be effectively pursued only on a programmatic basis. However, it is also well recognized that in this country it is becoming increasingly difficult to develop support and appreciation for the highly individualistic investigator who contemplatively follows the paths into which his idle curiosity directs him. It is from such unplanned efforts that the fundamental advances in scholarship have always sprung; the studies of Isaac Newton, Michael Faraday or J. Willard Gibbs could not have been programmed.

Certain governmental and industrial sources of funds are, quite understandably, more interested in supporting activities which are developmental rather than fundamental in character. Universities bear a heavy responsibility for fostering the creation of basic knowledge, and we can ill afford to have their staffs and facilities lured by financial inducements into the study of matters of immediacy.

The lion's share of sponsoring funds goes to institutions with outstanding scientists on their faculties and already strongly developed research activities. Thus the stronger schools become proportionately even stronger, and it becomes increasingly difficult for less well established institutions to meet the competition for staff, students and finances. It might be argued that this tendency is healthy, that we already suffer from an overabundance of weak colleges and universities. However this may be, the tendency should be recognized and discussed, rather than ignored.

The situation with respect to institutions is paralleled by the relative ease with which scientists with well established reputations secure generous support for their activities as compared with younger scientists who are actually more apt to come forward with original ideas and are more able to pursue them with vigor.

There is good basis for the view that the indirect costs of sponsored research are larger than the overhead allowances included in most research contracts and grants, and that most fellowships and scholarships awarded by government and private agencies include insufficient amounts for the institution to cover the actual costs of the education it supplies. Thus the large sums channelled into universities under present arrangements may be aggravating their already acute financial problems. This in turn may lead to further intensification of the imbalance between disciplines, since university funds previously available to the social sciences and the humanities

[1] See, for example, the following: (a) "Government-University Relationships in Federally Sponsored Scientific Research and Development", National Science Foundation NSF 58-10, April, 1958. (b) "Sponsored Research Policy of Colleges and Universities." Report of the Committee on Institutional Research Policy, American Council on Education, December, 1954. (c) "Some Dilemmas in Graduate Education." Report by John C. Weaver to the Carnegie Corporation of New York, 1958. (d) Statement of McGeorge Bundy of Harvard University before the Subcommittee on Reorganization of the Committee on Government Operations of the U. S. Senate, March 15, 1955. (e) "Scrutiny of Professors", L. Joughin, *Bull. Amer. Assoc. Univ. Prof.*, 44, 199 (1958).

[2] Recognition of the receptiveness accorded to ambitious proposals has lead to the development of practices which should be considered as beneath the ideals of academic propriety and dignity. A recent issue of a scientific weekly carried an advertisement seeking a "financial administrator," for a university research group of 20 scientists, whose duty it would be to seek and maintain sponsorship of the research program from government and industry; it was stated that applicants for the position must have previous experience in obtaining sponsorship and writing up proposals.

may have to be diverted to help underwrite the indirect costs of sponsored activities in the natural sciences.

There are many clumsy features in the present splintered arrangements for the administration of outside support for academic activities which lead to serious wastes of time and funds. This is particularly true of governmental support. A large university may receive several million dollars annually in government research contracts and grants. For the most part, these funds are awarded to individual faculty members, who may number in the hundreds. Each of these has had to prepare a more or less elaborate proposal which in turn has been subjected to detailed review and appraisal by officials in Washington and panels of government, academic and industrial scientists. Anyone familiar with these procedures is well aware that at the very least no charges of irresponsibility can be levelled at the various granting agencies; the most sincere efforts are made to insure that the taxpayers' money is well spent. But when these procedures are compared with the informal conversations between university administrative and academic personnel which usually precede the granting of university support to a research or educational project, it is evident that much time and effort is lost which could better be employed in productive activity. Then there is the matter of reports. Many agencies require annual progress reports, and more detailed reports at the termination of a contract or grant. The only evidence of accomplishment supplied to a university administration by one of its staff takes the form of published articles or books, or of recognition on the part of other scholars. An already bewildering array of diversified fellowship programs, ingenious programs for improving education and teaching at secondary, college and graduate levels (complete with "validating" questionnaires prepared by commercial "research" institutions), and schemes for developing interest in scientific careers on the part of high school and college students is being continually added to, with accompanying serious inroads on the time college administrators and teachers have available for their proper functions.

The foregoing summary of some of the problems arising from government and private subsidy of university activities leads us back to the basic question raised earlier—is it in the interest of society to permit the universities to lose a large measure of their authority in shaping the development of their own affairs? We urge that this is a question of the first importance to the nation and to society, and that developments rendering difficult a wise decision are multiplying at such a rate that no time should be lost in instituting an objective review of the situation on a nationwide scale.

American Language Teachers and Africa

(Continued from page 142)

more widely spoken languages of Africa, preparing experts for the imminent political, social and economic contacts. Finally, even in our high schools, more young Americans should acquire a real mastery of one of the major languages of the world, training in linguistic skills, and a consequent readiness to learn other less common languages whenever the need arises."

IMPROVING COLLEGE PHYSICS TEACHING

Francis W. Sears, chairman, department of physics, Dartmouth College, and president, American Association of Physics Teachers, announced in January, 1960, a national program to study methods of improving the teaching of physics in college with an initial grant of $69,000 from the National Science Foundation. In addition to three conferences, the AAPT plans to sponsor a book on lecture demonstrations, in order to supplement and bring up to date a volume now issued by the society, and to prepare and validate two tests at the introductory level.

Prof. Sears listed seven major reasons for the "new and expanded effort" at the college level:

"1. The technological advances of World War II and the recent spur in space technology raises the number of students who would like to understand more of our subject.

"2. Whether we like it or not, we are in a scientific civilization in which non-scientists need a much better understanding of scientists and their work if our civilizaton is to progress or even survive.

"3. With the present state of human health and the present economic conditions, educated people may look forward to many years of life. We shall need intellectual resources if life is to be happy (and that kind of happiness is good for the nation). Poetry, music, philosophy, and physics—if we teach it the right way—can offer intellectual resources. Physics should offer its share to those who want it.

"4. More trained scientists are needed in technology, teaching and government.

"5. All of the above reasons are aggravated by the increased drain of professional physics teachers away from teaching into industry.

"6. The physics that evolved in the first half of this century—quanta, wave behavior of particles, matter waves and probability—has completely changed the way in which physicists today treat their science. Many physicists believe it is time that elementary courses in college did justice to this new knowledge by treating it as an essential part of our present knowledge rather than teaching it as a separate 'modern physics' and are convinced that this change can be accomplished.

"7. Lastly, the course of study which has recently been developed by the Physical Science Study Committee of Massachusetts Institute of Technology and of Educational Services Incorporated, and primarily sponsored by the National Science Foundation, may well throw a new level of sophistication, interest and understanding into the early college classes. Many college students will have seen a coherence in the subject of physics and many of them will have learned to seek the underlying experimental evidence for physical theory."

ARISTOCRATIC THEORY OF HIGHER EDUCATION

Chancellor Lawrence A. Kimpton, University of Chicago, in an address in St. Louis to the American Association of Land Grant Colleges and State Universities, made the following statement:

"Why shouldn't we in private education admit very frankly and without invidious comparison that we exist to train an intellectual elite who have already proved that they are worthy of a higher education? This might be called the aristocratic theory of higher education, and I don't see anything wrong with it except the rhetoric, which many people, of course, will find offensive. These same people display a curious ignorance of both history

and human nature. There have always been some superior individuals, and true democracy depends upon this aristocracy. Our private institutions should be highly selective at all levels of entrance, and as a result they will be and should remain comparatively small. Like most other aristocratic organizations, they will charge all the traffic will bear, but no more than the traffic will bear. I mean by this that the tuition charge will be high enough so that it will bear a substantial part of the cost or even more than that of the education of the young person, but a number of scholarships will be provided for those who are aristocratic in brains but not in purse. If we are honest and forthright about all this, we can make some other statements which I think are true. Classes will be smaller and more attention will be paid to the individual. There will be more opportunity for flexibility and experimentation in curriculum and teaching methodology. The private university does not have to be so immediately responsive to public needs, and it should and indeed must be prepared to experiment, to find new ways, and provide a stimulating leadership for all higher education. It can make more mistakes than the public university—and I ought to know. And, all right, let's throw in a little snob appeal. We do every place else in American life and I don't know why educators have to hold up their hands in holy horror at such a thought. The appeal is snobbism at its highest level. You will be with an intellectual elite where the very best attention possible will be given to your education from the beginning. These are the rudiments of a case, I suggest, for private higher education. It is limited to those who have already proved themselves to be outstanding; it is small enough to be flexible and viable; and particular care and attention will be lavished upon those fortunate ones who belong to this intellectual elite. People of means can be asked to contribute to such an enterprise out of their desire to encourage the recognition and the progress of the uncommon man."

RUSSIAN ROYALTIES

TEN members of the Stanford University faculty will find their incomes increased if the Russians ever agree to join the International Copyright Union. These 10 either have written or co-authored at least 21 texts in mathematics, physics, and chemistry, which the Russians have adopted without paying royalties. The authors feel this situation is flattering, but not practical financially. If the Russians sign, the way would be cleared for a two-way exchange of royalties—"two-way" because the U.S. also has used Russian texts without payment of royalties.

A university survey shows that Vice-Pres. Frederick E. Terman and Russian-born Stephen P. Timoshenko, professor emeritus of theoretical and applied mechanics, each have written several works which drew Russian interest. In 1950, the Russians printed and used 20,000 copies of Dr. Terman's famous "Radio Engineers Handbook." The Russian version of Dr. Terman's "Electronic Measurements," which he wrote jointly with Dean Joseph M. Pettit, Stanford School of Engineering, appeared in 1955.

At least nine of Dr. Timoshenko's works have been used, including his classic "Strength of Materials." Four of the nine were written in collaboration with Donovan H. Young, professor of engineering mechanics at Stanford.

Apparently the earliest Stanford work to appear in an unauthorized edition was a study by George S. Parks, retired head of the chemistry department. In 1932, he wrote, with graduate student N. M. Huffman, a treatise on "The Free Energies of Some Organic Compounds." In 1938, he discovered it had been translated into Russian and used extensively throughout the Soviet Union.

George Polya, Stanford's professor emeritus of mathematics, has had three texts "adopted" by the Russians. So has Prof. M. M. Schiffer, executive head of the mathematics department, whose 1954 "Functions on Finite Riemann Surfaces," with D. Spencer, appeared in Russian in 1957. Likewise used was Prof. Hugh Skilling's "Fundamentals of Electric Waves," which he wrote in 1942 before he became head of the department of electrical engineering.

Russian scientific interest in outer space was underlined in 1958 when "Radio Astronomy," by Prof. Ronald Bracewell of Stanford's Radio Propagation Laboratory, appeared on Soviet bookstalls. It first appeared from the Oxford University Press in 1955.

The late professor of chemistry, James W. McBain, found in 1935 that his "Sorption of Gases and Vapors by Solids" was being used as a text in Russian colleges. He inquired of the Russian government, which asked him to write a preface to the Russian edition. His pay for this was a free trip through Russia.

Prof. Leonard I. Schiff, executive head of the physics department, asked for royalties two years ago when his text on "Quantum Mechanics" was taken over by Russian educators. The Russians established a ruble account in his name in Moscow, which he used while attending a world-wide physics conference in Kiev in July, 1959.

NEW METHOD IN COLLEGE CHEMISTRY

"TO TEACH chemistry students to think like chemists" is the object of a new method for teaching beginning chemistry which now is being tested in nine U.S. high schools, according to Laurence Strong, professor of chemistry, Earlham College, and director of the project. The present test, financed by a $90,000 National Science Foundation grant, is the culmination of approximately three years' work by a number of college and high-school chemistry teachers, made possible by financial contributions from various foundations and supported by the Division of Chemical Education, American Chemical Society.

The new teaching method grew out of the conviction by Dr. Strong and others that the conventional beginning chemistry course dealt with isolated facts and technology which students were required to memorize, rather than with the ideas of the logical pattern of chemistry. It is these ideas which in large part make possible modern developments in the chemistry of drugs, dyes, plastics, and fertilizers. Named the "Chemical Bond Approach Project," the course is based on the idea that atoms are tied together by bonds and that the manner in which they are tied together is an important factor in determining the chemical make-up of a substance. If students understand this basic factor, "they can gain an initial insight into the possibilities of predicting the properties of yet-to-be-made compounds," said Dr. Strong. "By such a procedure the student has the prospect of finding a real quality of intellectual integrity in his study and is able to focus on some of the most dramatic aspects of chemistry. There are great possibilities in this new approach of enlisting the interest of students at every level of ability."

CURRICULUM CHANGES AT VASSAR

A NEW CURRICULUM for Vassar College, with increased stress on independent work and student responsibility, was announced in December, 1959, by Dean Marion Tait. To take effect in 1960-61, Vassar's centennial year, it introduces an experimental program "in depth" for superior students after the freshman year and an honors program for qualified juniors and seniors. It also embraces changes in admission requirements and in distribution and concentration requirements. Along with academic changes will go alterations of the college calendar and schedule, designed to provide students with more effective study time. The changes are the result of a four-year study by the faculty and the board of trustees, supplemented by suggestions of successive student curriculum committees.

The proposed experimental program may be the first in a liberal arts college. The only requirements will be the 120 points required by New York State for the degree and a strong major and two strong minors, with one minor in a division other than that of the major.

The new admission requirements, effective in 1961 for the freshman class, strengthen foreign language requirements to four years of one language or three of one plus two of a second. Three years of mathematics will be needed. The exceptional student may be accepted after three years of school work if she has met, in general, the minimum specified requirements. In addition, credit for college-level courses completed in school will be granted to well-qualified students.

Vassar's new distribution requirements in the arts and foreign languages, the social sciences, the natural sciences, and mathematics will be spread throughout four years. No one specific subject will be required of students, not even English. However, good standards of written and spoken English will be demanded in all courses, with deficiencies given special attention during the first two years.

Students will be given an increased opportunity to range in their course elections before concentrating as upperclassmen. Freshmen and sophomores will carry five courses; juniors and seniors, four. The amount of work that may be done in a major field has been increased, and a substantial minor field is to be incorporated into each student's program. Provision for an earlier decision about a major is made in order to help students learn more speedily to direct their own studies.

While independent summer work will continue, new programs of independent work introduced into the curriculum include, for qualified juniors, independent reading, research projects, group tutorials, and seminars, the nature of these programs varying according to departmental requirements. As much as possible, students will be expected to work with a minimum of supervision by the faculty.

Vassar also will abolish its present general academic advising system in favor of reliance mainly on departmental advisors. Furthermore, freshmen will elect their courses at the time of arrival in the fall rather than by mail in the spring preceding entrance. Commenting on the new advising philosophy, Dean Tait said, "Mistakes are one of the chief and best sources of learning. We hope our students will learn not to be afraid of a mistake, either in prospect or in retrospect. To learn this is to take a giant step toward the ultimate goal of liberal education: The conquest of fear in the exercise of responsible freedom."

PROPOSED: INTERNATIONAL FUND FOR ASIAN PRIMARY EDUCATION

AN INTERNATIONAL FUND for supporting compulsory primary education in Asia was proposed by Habibur Rahman, Pakistan's Minister of Education, at a regional meeting of Asian members of Unesco in Karachi, Dec. 28, 1959. The problem confronting Asian countries, he said, was how to give universal education within the shortest time. He was hopeful that nations which were spending billions on armaments would make money available for the support of primary education in underdeveloped areas.

Malcolm Adiseshiah, Unesco assistant director-general, described the situation in Asian countries regarding primary education as "grim." In 15 countries surveyed, he said, 45,000,000 children were deprived of any education facilities and a large number of the 55,000,000 children going to school received only a limited education under conditions of great hardship and poverty. "The situation is not only a potential source of dissatisfaction, unrest and danger to world peace but it is also a serious deterrent to the progress and prosperity of the world as a whole." He expressed hope that the Karachi meeting would plan a major drive to help Unesco's director-general present to the 11th session of Unesco's General Conference (November, 1960, in Paris) a program of some magnitude for the development of primary education in Asia.

Fifty delegates from 17 countries and 20 observers from the United Nations, its agencies, and cultural bodies attended the Karachi meetings. The countries represented were Afghanistan, Burma, Cambodia, Ceylon, Republic of China, Federation of Malaya, India, Indonesia, Iran, Japan, Republic of Korea, Laos, Nepal, Pakistan, Philippines, Thailand, and Republic of Vietnam.

The launching of a Unesco "major project" on the extension of compulsory primary education in Asia is under consideration, the Unesco *Chronicle* reports. It would be Unesco's fourth major project, supplementing those now being conducted in relation to compulsory primary education in Latin America, research on problems of arid lands, and mutual appreciation of cultural values of the Occident and Orient.

PROGRESS IN EDUCATION IN INDIA

THE RATE OF PROGRESS in the field of technical education in India since independence has been most spectacular, observed Prof. Humayun Kabir, Union Minister of Scientific Research and Cultural Affairs, in an address to the New Education Fellowship Training Seminar, New Delhi, Dec. 18, 1959. He said that in 1947-48, annual admissions in the engineering colleges were less than 3,000, while in 1959 they have been over 11,000, and the number was expected to reach about 13,000 by 1961. Admissions to polytechnics in 1947-48 were less than 4,000, in 1959 over 20,000, and was expected to reach 25,000 by 1961. There also had been expansion in the field of research and postgraduate studies in these fields. In 1947-48, there were practically no facilities in the country for postgraduate studies in engineering and technology, while today hundreds of students are doing research work in several institutions all over the country.

Another striking feature in the field of technology was the stress laid on the study of humanities. The ideal of Indian education was to prepare a balanced human being with a sense of understanding and compassion. These two qualities were essential for democracy and peace in the modern world. The main objective was to prepare a group of people who will be acquainted with developments in the modern world, have a scientific outlook, and also be rooted in Indian traditions.

The minister briefly described the all-round progress in education in India at various stages—namely, elementary, secondary, and university. In 1947-48, only 15,000,000 children in the age group 6-11 were in schools, while by the end of 1955-56 their number was 30,000,000, and according to the revised target the ideal of universal education for the age group 6-11 was expected to be reached by perhaps 1965-66. At the secondary stage, the number of children in 1947-48 was 3,000,000, and in 1959 it was about 8,000,000. Similarly, at the university stage, the number of students was 250,000 in 1947-48; in 1956 it was 750,000; and in 1959 it was about 1,000,000.

Literacy percentage in the country was about 14 or 15% in 1947-48, and in 1959, according to the preliminary census sample survey, it is probably about 40%. These figures indicated the substantial progress of education in India, according to Prof. Kabir.

CITIZENSHIP EDUCATION IN JUNIOR HIGH SCHOOL

A NEW APPROACH to citizenship education in junior high school was presented recently to some 60 New York State citizenship supervisors at a State Education Department conference in Albany. When two professors from the State University College of Education, Potsdam (N.Y.), finished their presentation, they were bombarded with queries from the supervisors which tested and pried and probed their new approach, according to a special communication to SCHOOL AND SOCIETY by Prof. Earl R. Hutchison, department of English, SUCE.

The two professors responsible for the presentation were Dr. Charles Lahey (social studies) and Robert L. Arnold (education). The new approach to citizenship education courses (geography, government, history, geology, etc.) emphasizes both methodology and thorough knowledge in the academic area and demands creative

efforts on the part of the students. It also taxes the inventiveness and ingenuity of the teacher. Prof. Lahey, who developed the program, said pupils are led to use facts to show relationships between man and his environment and to realize that these relationships change as man reaches different levels of civilization and as the environment itself is modified.

Actual adaptation of the program in the classroom was explained by Prof. Arnold, who also teaches in the junior high school at the Potsdam SUCE. "We begin discussion with the home area. Then we expand in ever-widening circles, in area as well as subject matter. After forming a mental picture of the natural surroundings, some of the next study steps are the general geology of the area—bedrock structure, mineral deposits, soil, etc., all of which in some way or another affect man's way of life in a particular region." Then the pupils study the climate of the area, length of growing seasons and rainfall, and natural transportation routes. They become greatly interested in testing soil and examining bedrock, and seeing the influences all these factors have on life."

The succeeding steps in the course put to use the early investigative procedures already stressed in analyzing the local community. They are expanded to include the state and then the country, piecing together the historical information—but always with an emphasis on life.

INTER-UNIVERSITY PROGRAM IN ITALIAN LITERATURE

EIGHT UNIVERSITIES announced in February a co-operative program that revives the tradition of the "wandering scholar." These schools will pool their faculty and research facilities for students of Italian literature. Candidates will work, for one year each, at any three of the participating universities he selects. The schools are the Universities of Chicago, Michigan, and Pennsylvania; and Cornell, Indiana, Northwestern, Syracuse, and Tulane Universities.

Prof. Bernard Weinberg, chairman, department of Romance languages and literatures, University of Chicago, originated and developed the program. He said that great cultural activity in postwar Italy has stimulated widespread interest in Italian literature, but that research and teaching facilities have not kept up with these advances. Few institutions are in a position to offer the specialized studies necessary to sound scholarship.

"The distinguished professors of Italian languages and literature are scattered throughout the country today. The situation is much the same as it was centuries ago when European students would have to roam from one university to another to complete their education in certain studies. Our program will make it possible for students to come in contact with the best minds in the field.

"The Inter-University Program places the Ph.D. candidate in three different institutions over as many years and provides a more complete and diversified program in Italian studies than would be possible at any one university."

The degree will be granted by the institution under whose guidance the student writes his dissertation. Candidates for the program should have sufficient prior preparation in Italian to enable them to take graduate work in the language and literature. The program also should involve graduate work in a second Romance language.

NEW POSTS

Calvin H. Plimpton, assistant dean, College of Physicians and Surgeons, Columbia University, appointed president, Amherst (Mass.) College, effective July 1, succeeding Charles W. Cole, who is retiring . . . **John J. Meng,** dean of administration, Hunter College (New York City), is now serving as acting president and will become president on Sept. 1, when Pres. George N. Shuster retires . . . **Herbert E. Longenecker,** vice-president in charge of professional colleges, University of Illinois, will succeed Rufus C. Harris as president, Tulane University (New Orleans, La.), in September . . . **Howard L. Rubendall,** president, Northfield Schools, will become president, Dickinson College (Carlisle, Pa.), July 1, 1961, when Pres. Gilbert Malcolm will assume duties as provost . . . **John A. Howard** named president, Rockford (Ill.) College.

George D. Stoddard, acting executive vice-president, New York University, appointed chancellor and executive vice-president. Other appointments: Walter A. Anderson, acting dean, School of Education; Kenneth N. McKee and William E. Buckler, associate deans, Washington Square College of Arts and Science; Eugene J. Kelley, assistant dean and professor of marketing, Graduate School of Business Administration; Carleton F. Scofield, associate director, and Gerhart Saenger, research director, Center for Applied Social Research . . . **Msgr. John J. Dougherty,** professor of sacred scripture and Hebrew, Immaculate Conception Seminary (Darlington, N. J.), named president, Seton Hall University (South Orange, N. J.) . . . **Thomas H. Hamilton,** vice-president of academic affairs, Michigan State University (East Lansing), was installed this past fall as president, State University of New York.

Phil H. Putnam, director, Ventura (Calif.) Junior College, appointed superintendent and president, Compton (Calif.) College . . . **David A. Lockmiller,** president, Ohio Wesleyan University, elected president, Association of American Colleges . . . **Benjamin C. Willis,** general superintendent of schools, Chicago, is the new president-elect, American Association of School Administrators . . . **Chauncey D. Leake,** assistant dean, Ohio State University's College of Medicine, is now president, American Association for the Advancement of Science . . . **Leon E. Dostert, Karl-Heinz Planitz, and Henry Grattan Doyle** elected president, vice-president, and secretary-treasurer, respectively, National Federation of Modern Language Teachers Associations. Mortimer Graves has succeeded James B. Conant as honorary president . . . **James W. Moore,** executive director, State Scholarship Commission in California, appointed chief, Student Loan Program under the National Defense Education Act.

William Van Til, chairman, department of secondary education, School of Education, New York University, named president-elect, Association for Supervision and Curriculum Development, NEA . . . **Robert W. Sneden,** president, Davenport Institute (Grand Rapids, Mich.), elected president, National Association and Council of Business Schools . . . **John Hicks** is the new executive director, College English Association . . . **Barry Commoner,** professor of plant physiology, Washington University (St. Louis, Mo.), elected vice-president, American Association for the Advancement of Science . . . **Kenneth W. Riddle,** dean, Evening College and Diploma School, Drexel Institute (Philadelphia), appointed president, Association of University Evening Colleges . . . **Carter Davidson,** president, Union College (Schenectady, N. Y.), elected chairman, board of trustees, Carnegie Foundation for the Advancement of Teaching, 1959-60.

Leif Kr. Tobiassen, Norwegian scholar who has served on the faculty, Union College (Lincoln, Neb.), appointed president, Seventh Day Adventist West Indies College (Mandeville, Jamaica, B.W.I.) . . . **Robert M. Lumianski,** dean, Graduate School, Tulane University (New Orleans), named provost of the university . . . **Clayton O. Dohrenwend,** dean, Graduate School, Rensselaer Polytechnic Institute (Troy, N. Y.), has assumed duties as provost. Edwin B. Allen, head, department of mathematics, appointed dean, Graduate School . . . **Richard M. Mall,** associate professor of speech, Ohio State University, appointed co-ordinator of the State of Ohio's Advanced Placement Program, a statewide effort

aimed at helping high-schools to offer college-level courses to superior students . . . **Philip H. Powers,** retired president, West Penn Power Co., named assistant chancellor for development, University of Pittsburgh.

T. M. Stinnett, executive secretary, National Commission on Teacher Education and Professional Standards, appointed assistant executive secretary for professional development and welfare, NEA . . . **Abraham J. Tannenbaum,** member, Talented Youth Project, Horace Mann-Lincoln Institute of School Experimentation, Teachers College, Columbia University, named co-ordinator of education for the gifted, New York State Education Department . . . **Thomas F. Nevins,** assistant superintendent of schools, Brooklyn, N. Y., elected president, Metropolitan School Study Council, New York City . . . **Louis Shores,** dean, Library School, Florida State University, is now on year's leave of absence to serve as editor-in-chief, "Collier's Encyclopedia" . . . **Palmer C. Weaver,** dean, summer sessions, Pennsylvania State University, named vice-president, Association of Deans and Directors of Summer Sessions . . . **Harvard University appointments:** L. Gard Wiggins, administrative vice-president; Thomas E. Crooks, director, Summer School of Arts and Sciences and of Education; and Howard Mumford Jones, Abbott Lawrence Lowell Professor of Humanities—all effective July 1.

Ralph A. Sawyer and John Bowditch named vice-president for research and chairman, department of history, respectively, University of Michigan . . . **Henry T. Sulcer** has assumed duties as vice-president for development, University of Chicago . . . **Haskell R. Patton,** controller and business manager, appointed vice-president for business affairs, Carnegie Institute of Technology (Pittsburgh, Pa.) . . . **Appointments at Columbia University:** Pardo F. DelliQuadri, dean, School for Social Work; Bernard Berelson, Bureau of Applied Social Research and professor of sociology; and Leo W. Simmons, executive officer, Institute of Research and Service in Nursing Education, and professor of education, Teachers College . . . **Harlan L. Hagman,** professor of education,, Wayne State University (Detroit, Mich.), named dean of administration . . . **Damon Boynton,** professor of pomology, New York State College of Agriculture, Cornell University, succeeded John W. McConnell as dean, Cornell's Graduate School.

Fr. Lawrence W. Friedrich, S. J., chairman, department of physics, Marquette University (Milwaukee, Wis.), named dean, Graduate School . . . **Frederick D. Rossini,** head, department of chemistry, University of Notre Dame, will become dean, College of Science, and associate dean, Graduate School (for science), Sept. 1. Marshall Smelser appointed head, department of history . . . **Roger Hazelton,** chairman, department of religion, Pomona College, and professor of religion, Claremont (Calif.) Graduate School, named dean, Graduate School of Theology, Oberlin (Ohio) College, effective Sept. 1,. . . **Appointments at Northeastern University** (Boston): Roy L. Wooldridge, dean and director, department of co-operative education; Gilbert C. Garland, dean and director of admissions; John S. Bailey, director of public relations; and Don Stewart, director, Office of University Publications . . . **Karl E. Limper,** professor of geology, Miami University (Oxford, Ohio), appointed dean,, College of Arts and Science . . . **Philip I. Mitterling,** assistant professor of history, Hobart and William Smith Colleges (Geneva, N. Y.), named dean, Thiel College (Greenville, Pa.).

Virginia L. Harvey and Virginia L. Radley are the new deans of administration and of freshmen, respectively, Russell Sage College (Troy, N. Y.) . . . **Linwood F. Tice and Arthur Osol** appointed deans of pharmacy and of science, respectively, Philadelphia College of Pharmacy and Science . . . **George W. Farwell,** professor of physics, University of Washington (Seattle), named associate dean, Graduate School . . . **Clarence B. Hilberry,** president, Wayne State University, has taken over the direction of the Graduate Division of Instruction and Research until a successor to the post can be named . . . **Bradley Chapin,** assistant vice-chancellor of educational affairs, University of Buffalo (N. Y.), appointed director of admissions . . . **William R. Smith,** engineering training director, International Harvester Co., succeeds Raymond D. Meade as director of co-operative education, Illinois Institute of Technology (Chicago).

Wesley G. Campbell, research director, American Enterprise Association (Washington, D. C.), named director, Hoover Institution on War, Revolution, and Peace, Stanford (Calif.) University. The institution, founded by former Pres. Herbert Hoover after World War I, contains historical documents on Soviet Russia, Middle East, China, Japan, and Africa, and is one of the world's leading centers for research in international affairs . . . **J. Kenneth Little,** director of institutional studies, University of Wisconsin, appointed director, Federal educational program survey. He will assist the Department of Health, Education, and Welfare in evaluating the scholarship, fellowship, and educational programs of all agencies of the Federal government . . . **A. A. Beecher and Howard G. Johnshoy** appointed director, Division of Fine Arts, and dean of student affairs, respectively, University of South Florida (Tampa) . . . **Gene P. Dean,** assistant director of admissions, Pratt Institute (Brooklyn, N. Y.), is now director . . . **Wayne V. Strasbaugh** named director of development, Lebanon Valley College (Annville, Pa.).

Donald B. Johnson, associate professor of political science, State University of Iowa, appointed associate director, Citizenship Clearing House, an independent educational corporation with headquarters at New York University's Law Center . . . **John A. Gough** named head of the new Captioned Films for the Deaf Program administered by the U.S. Office of Education . . . **Willis F. Dunbar and James H. Powell** will assume duties as heads, departments of history and of mathematics, respectively, Western Michigan University (Kalamazoo), July 1 . . . **E. Allen Helms** is now chairman, department of political science, Ohio State University . . . **Yeshiva University's new chairmen** at Graduate School of Education: Edmund Gordon (rehabilitation studies for mentally retarded and emotionally disturbed), Helen G. Trager (department of elementary education), William H. Atkins (department of guidance and personnel), and Solomon S. Simonson (department of English, speech, and communications).

Frances I. Phillips is now chairman, department of education, Gallaudet College (Washington, D. C.) . . . **Richard H. Brown** named chairman, department of mathematics, Washington College (Chestertown, Md.) . . . **Daniel Girard,** professor of French and chairman of foreign languages, Teachers College, Columbia University, appointed professor-in-charge of 1960-61 Junior Year in France of Sweet Briar (Va.) College . . . **Promotions to professorships at Union College** (Schenectady, N. Y.): Sherwood D. Fox (sociology), Glenwood Boulevard (English), James A. Riedel (government), and William C. Stone (mathematics).

RETIREMENTS . . .

Edwin S. Burdell retired Feb. 29 as president emeritus, The Cooper Union for the Advancement of Science and Art. He has assumed duties as president, Middle East Technical University (Ankara, Turkey) . . . **William E. Stevenson,** president, Oberlin (Ohio) College, Dec. 31, 1959 . . . **Paul V. Sangren,** president, Western Michigan University, at the close of the present academic year . . . **E. E. Roberts,** chairman, department of journalism, Bethany (W. Va.), retired Jan. 1 as professor emeritus.

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